

# TECHNIQUE CLINIC

## Custom-Made Ligature Hooks for Engaging Elastics

Intermaxillary elastics are often used to settle the occlusion during the finishing stages of treatment. This article describes the fabrication and application of simple ligature hooks for the attachment of such elastics.

### Procedure

1. Using a bird-beak plier, bend a length of dead-soft .014" ligature wire into a loop (A).
2. Weld the two legs of the loop together, about 3-5mm from the top, to form a closed hook (B). This prevents distortion or opening of the hook during placement and engagement.
3. Bend the legs down near the base of the hook so they extend parallel to each other (C).

The size of the hooks can be varied according to the tooth location; longer hooks will make it easier to engage elastics on the posterior teeth (D). Ligature wires as thin as .009" can be used, but the clinician should ensure that the hooks are stiff enough to hold the elastics in place, especially during insertion and removal. Distortion of the hooks may discourage the patient from using elastics daily as prescribed.

To increase the stiffness of the hook without changing the diameter of the wire, twist the legs of the ligature wire around each other, using an artery forceps, before tying the wire to the



bracket (E). This will double the diameter of the hook while keeping its length the same.

Two hooks can be bent into the same ligature wire if desired,



so that they lie on either side of the bracket when tied in place (F). Forces can be applied from either the mesial or distal of the tooth, or vertically (G).

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### Conclusion

After using these ligature hooks for more than a year, we have noted the following advantages:

- They are highly economical.
- With less need for replacement due to distortion, they save considerable chairtime.
- Using dead-soft wires without sharp edges makes them comfortable for the patient.
- Cooperation is improved because of the ease of engagement of the elastics, even on the most posterior teeth.



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